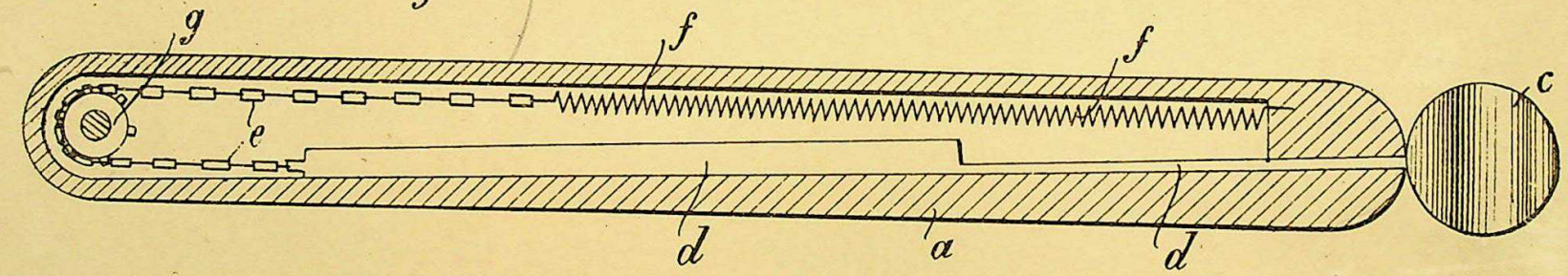
[This Drawing is a reproduction of the Original on a reduced scale.]

(1 SHEET)

A.D. 1899. APRIL 20. No. 8318.

GERTEISER'S Complete Specification.

Fig.1.



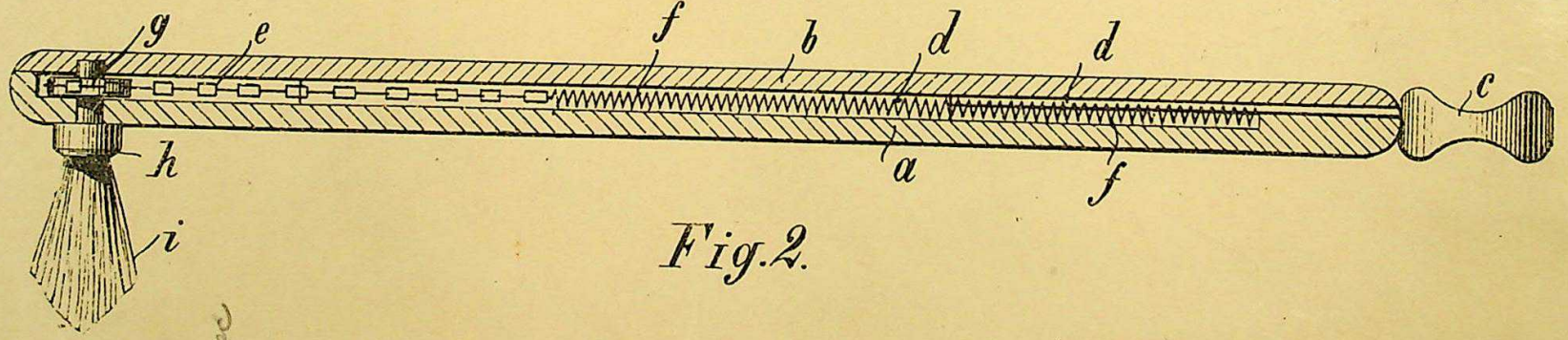


Fig.2.

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Rotary Brushes

N° 8318 A.D. 1899

Date of Application, 20th Apr., 1899—Accepted, 20th May, 1899

DUPLICATE

COMPLETE SPECIFICATION.

An Improved Tooth Brush.

I, Rudolf Gerteiser, of 42, Alisenstrasse, Neu Isenburg, Hesse-Darmstadt, Chef, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

The present invention relates to a tooth-brush which allows of thoroughly cleaning hollow teeth, which is impossible with tooth brushes of the kind hitherto used.

In the accompanying drawings:—

Figure 1 is a horizontal section.

Figure 2 is a vertical section through the longitudinal axis, both figures being about one-half of the natural size.

The tooth brush comprises a chain wheel *g* mounted at one end of a long handle *a* which may be made of ivory, horn or other suitable material and is of a conveniently handy size. Around this chain wheel there runs a chain *e* which is fixed at one end to the slide or rod *d* and at its other end to the coiled spring *f*. The rod *d* extends beyond the handle *a* at the end which is opposite to the wheel *g*, and on its projecting end it is provided with a pull knob *c*. The other end of the axle of the chain wheel *g* extends through the flat side of the handle *a* and it there carries in a socket *h*, a conical bundle of bristles *i*. The mode of operation is as follows:—With the help of the handle *a*, the cone of bristles *i* is inserted into the cavity of the tooth, and then by means of the pull knob *c*, the rod *d* is drawn out until the shoulder formed on the same and shown in Figure 1, strikes against the inner end wall of the handle *a*. By this means the chain *e* rotates the chain wheel *g* and places the spring *f* in tension, and thereby compels the cone of bristles *i* to revolve. If now the pull knob *c* be released the force of the spring *f* will draw the chain *e* and the rod *d* back again, whereby the chain wheel *g* and with it the cone of bristles will be revolved as before but in the reverse direction. By pulling the rod *d* in and out rapidly, the bundle of bristles *i* will be caused to revolve rapidly with a right hand and with a left hand motion in such a manner as to thereby thoroughly clean out the cavity of a decayed tooth, because by this mode of operation all the places are acted upon which serve to collect the dirt, and which were hitherto inaccessible to the brushes heretofore employed.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

A tooth brush for hollow teeth, characterized by the fact that at one end of a suitable handle *a* there is arranged a laterally projecting cone of bristles *i* which is caused to revolve alternately to the right hand and to the left hand by means of a pull knob *c* arranged at the other end of the handle *a*, through the medium of

the rod *d* (situated inside the handle *a*), chain *e*, chain wheel *g*, and spring f^1, as set forth.

Dated this 20th day of April 1899.

ROBERT E. PHILLIPS, Assoc. M.Inst.C.E., M.I.Mech.E.,
Chartered Patent Agent,
70, Chancery Lane, London, W.C., Associate Agent.

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